PALEONTOLOGY.—*New Middle Devonian stratigraphic names.*[1]

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These new names are proposed to make them available for use on the "Devonian Correlation Chart" of the National Research Council.

Stone Mill member of the Ludlowville formation: A thin bed of limestone varying from 1 to 3 feet in thickness and exposed at several localities on both sides of Chenango Valley in Morrisville Quadrangle, east-central New York. The type section is located in the bed and banks of Stone Mill Brook, 4½ miles (airline) southeast of Lebanon and about 1½ miles northwest of Earlville, N. Y. The layer has only a local distribution but as the easternmost representative of the Centerfield limestone has considerable stratigraphic significance. It consists mostly of crinoidal and fragmentary shell material but contains considerable sand. Its westernmost exposure is in a small glen at the southeastern tip of Bradley Brook Reservoir, and its easternmost appearance is in a ravine about 2½ miles southwest of Poolville. This member contains a fairly large fauna the most important species of which are: *Prismatophyllum* n.sp., "*Spirifer*" *venustus* Hall, *Vitulina pustulosa* Hall, "*Sp.*" *sculptilis* Hall, and many water-worn corals.

The Stone Mill member represents the last detected appearance of the Centerfield formation in eastern New York. The overlying fine-grained sandstone also contains many elements of the Centerfield fauna but it has not proved possible to trace them beyond the eastern limit of the Morrisville Quadrangle. It is therefore thought that the crinoidal and shell debris, together with the rolled corals, represents an eastern-shore phase of the Centerfield.

Logansport limestone: The name of this formation is derived from the city of Logansport, north-central Indiana, but the exposure selected as the type section is located at Pipe Creek Falls, 2 miles above the junction of Pipe Creek and the Wabash River, 7 miles above Logansport. Here 12 feet of light-colored granular limestone overlies the Silurian at the falls; corals and other fossils are abundant particularly in the upper 6 feet. Important Centerfield elements in the fauna are: *Camarospira, Eunella attenuata, Camerophoria, Cyclorhina,* and "*Spirifer*" *venustus.*

This formation had previously been correlated with the Onondaga limestone on the basis of the reported presence of *Spirifer acuminatus* and other Onondaga types. This confusion of Onondaga and Hamilton types occurred because the Logansport formation has a "reef facies"

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like parts of the Onondaga. Re-examination of the fossils shows closest affinities of the Logansport to the Four Mile Dam limestone of the Traverse Group of Michigan.

Hungry Hollow formation: Proposed for the Encrinal limestone and coral bed at the base of the Widder formation in southwestern Ontario. These two beds contain a fauna wholly unlike that of the Widder. Although the Encrinal and coral bed are unlike in lithology the two contain the same fossils and are thus a faunal unit. The type section is in the bluffs along the Aux Sables River in Hungry Hollow (also known as Bartlett's or Marsh's Mill), 2½ miles east of Arkona, Ontario. Here the Hungry Hollow formation consists of 2½ feet of light-brown crinoidal limestone overlain by 3 to 4 feet of calcareous shale abounding in corals and other fossils. The formation contains an almost exact duplication of the Centerfield fauna of western New York.

Four Mile Dam limestone: Type section located at the Four Mile Dam on Thunder Bay River, Alpena County, Mich. The rock exposed at this place is a part of a reef of uncertain thickness overlain unconformably by the Norway Point formation. The Four Mile Dam limestone abounds in fossils of Centerfield affinities: *"Spirifer" venustus, Camarospira, Camerophoria, Cyclorhina, Parazyga,* and *Strombodes alpenensis.*

Newton Creek limestone: Proposed for the brown, bituminous and crystalline limestone 25 feet thick exposed 12 feet above the floor of the Michigan Alkali Company Quarry, Alpena, Mich., and extending to a thin black shale at the base of the Alpena limestone. The formation abounds in large brachiopods: *Cranaena, Pentamerella, Camerophoria,* and *Charionella.*

Rockport Quarry limestone: Proposed to replace Rockport limestone of Smith, 1916 (not Bastin, 1908; Krebs, 1911; or Marbut, 1904). The type section is in the quarry of the Kelly Island Rock and Transport Company at Rockport in the northeast corner of Alpena County, Mich.